

# United States Patent [19]

# Crowley et al.

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[54] METHOD AND APPARATUS FOR FABRICATING BICHROMAL BALLS FOR A TWISTING BALL DISPLAY

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### Related U.S. Application Data

[63] Continuation of Ser. No. 996,299, Dec. 23, 1992, abandoned.

| [51] | Int. Cl. <sup>5</sup> | B29B 9/10             |
|------|-----------------------|-----------------------|
| [52] | U.S. Cl               | <b>264/8</b> ; 264/5; |
|      |                       | 264/10; 425/6; 425/8  |
| [58] | Field of Search       |                       |
|      |                       | 425/6, 8, 10          |

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## Primary Examiner-Mary Lynn Theisen

#### [57] ABSTRACT

An apparatus for fabricating hemispherically bichromal balls, comprising a separator member having opposing first and second surfaces located and an edge region in contact with both surfaces, and delivery means for flowing first and second colored hardenable liquid material over the first and second surfaces, respectively, so that the liquid materials arrive at the edge at substantially the same flow rate and form a reservoir outboard of the edge region. The reservoir comprises side-by-side regions of different colors which do not intermix. Further means is provided for propelling the first and second liquid materials away from the separator member and out of the reservoir into a fluid medium as a plurality of side-by-side bichromal streams whose forward ends become unstable and break up into droplets which form into spherical balls, each of the balls comprising hemispheres of differently colored hardenable liquid, and means for collecting the bichromal balls.

#### 13 Claims, 6 Drawing Sheets

